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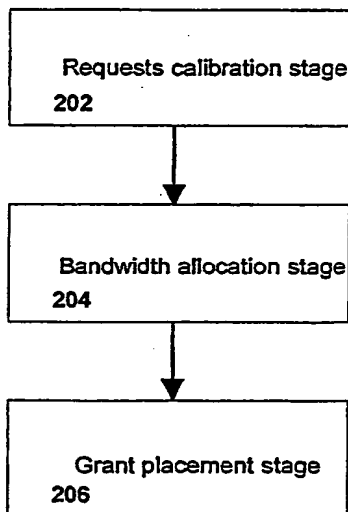
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- (71) Applicant (for all designated States except US): PAS-SAVE LTD. [IL/IL]; Ackerstein Towers, 9 Hamenofim St., 46725 Hertzliya pituach (IL).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): HARAN, Onn [IL/US]; 1024 Alderbrook In., 95129 San Jose, CA (IL).
- (74) Agent: FRIEDMAN, Mark M.; 7 Haomanim Street, 67897 Tel Aviv (IL).
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(54) Title: METHOD AND APPARATUS FOR DYNAMIC BANDWIDTH ALLOCATION IN AN ETHERNET PASSIVE OPTICAL NETWORK



(57) Abstract: In a passive optical network that includes a plurality of optical network units (ONUs) coupled to an optical line terminal (OLT), dynamic bandwidth allocation (DBA) methods and algorithms designed to support a short delay as well as best effort services, while maintaining fairness between subscribers. In a preferred embodiment, a DBA allocation method comprises the steps of calibrating requests issued by each of the ONUs to obtain respective calibrated requests, allocating a bandwidth amount to each ONU based on the calibrated requests using an allocation scheme selected from the group consisting of an under-utilization allocation scheme and an over-utilization allocation scheme, and based on the bandwidth allocation, granting the ONUs a second plurality of constant delay grants per each cycle.

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